

4. (Thrice Amended) The method according to claim 30, wherein the second photopolymer has a second modulus of elasticity, the method comprising the step of:

curing said second photopolymer for a second period of time and at a second radiation wavelength to obtain said second modulus of elasticity.

5. (Thrice Amended) The method according to claim 30, wherein said step of combining includes the step of:

adjusting the relative proportions of said first and second photopolymers so that said third material has a third modulus of elasticity.

8. (Twice Amended) The method according to claim 30, wherein approximately 95 to 100% of said third material includes said first photopolymer and 0 to 5% of said third material includes said second photopolymer.

9. (Twice Amended) The method according to claim 32, wherein approximately 0 to 5% of said release material includes said first photopolymer and 95 to 100% of said release material includes said second photopolymer.

10. (Twice Amended) The method according to claim 30, wherein said first photopolymer is a different color than said second photopolymer.

11. (Twice Amended) The method according to claim 30, wherein said first photopolymer is transparent.

12. (Twice Amended) The method according to claim 30, wherein said second photopolymer is transparent.

14. (Twice Amended) The system according to claim 34 further comprising an electromagnetic radiation source for curing at least one of said photopolymers.

C5 15. (Thrice Amended) The system according to claim 14 wherein said first photopolymer has a first modulus of elasticity and said second photopolymer has a second modulus of elasticity and said electromagnetic radiation source includes at least:

a first electromagnetic radiation source for curing said first photopolymer for a first period of time and at a first radiation wavelength to obtain said first modulus of elasticity; and

a second electromagnetic radiation source for curing said second photopolymer for a second period of time and at a second radiation wavelength to obtain said second modulus of elasticity.

C6 16. (Twice Amended) The system according to claim 34, wherein said printing head includes first and second printing heads and wherein said first photopolymer and second photopolymer are dispensed from first and second printing heads, respectively.

19. (Twice Amended) The system according to claim 34, wherein said first and second photopolymers are curable by the application of any one of a group including ultra-violet radiation, infra red radiation and E-beam.

C7 20. (Twice Amended) The system according to claim 34, wherein said first photopolymer is a different color than said second photopolymer.

21. (Twice Amended) The system according to claim 34, wherein said first photopolymer is transparent.

22. (Twice Amended) The system according to claim 34, wherein said second photopolymer is transparent.

C8 24. (Twice Amended) The system according to claim 36, wherein said printing head includes a plurality of printing heads and wherein each of said plurality of photopolymers are dispensed from a different one of each of said plurality of printing heads.

27. (Twice Amended) The system according to claim 36 wherein said photopolymers have different modulus of elasticity.

C9 28. (Twice Amended) The system according to claim 36, further comprising a dispenser for dispensing transparent photopolymer.

29. (Twice Amended) The system according to claim 36, wherein said photopolymers are curable by the application of any one of a group including ultra-violet radiation, infra red radiation and E-beam.

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E1 30. (Once Amended) A method for three-dimensional printing of a model, said method comprising:
dispensing a first photopolymer and a second photopolymer material from at least one printing head; and
combining said first and second photopolymers in a variably selectable proportion to produce a third material.

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m/F 31. (Once Amended) The method of claim 30, wherein the first photopolymer has a first modulus of elasticity and wherein the second photopolymer has a second modulus of elasticity.

32. (Once Amended) The method according to claim 30, wherein said third material is a construction material, the method comprising:
combining said first and second photopolymers to form a release material, said release material having a lower modulus of elasticity than said construction material.

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C1/E2 34. (Once Amended) A system for three-dimensional printing of a model, comprising:
at least one printing head;
at least first and second dispensers connected to said at least one printing head for dispensing at least first and second photopolymers respectively; and

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a controller connected to said at least one printing head to cause said at least one printing head to dispense said first and second photopolymers so that said first and second photopolymers are combined in a variably selectable proportion to produce a third material.

35. (Once Amended) The system according to claim 34 wherein first and second photopolymers are combined into construction material and release material, said construction material and release material each including differing proportions of said first and said second materials.

36. (Once Amended) A system for three-dimensional printing of a model, comprising:

- at least one printing head, having a plurality of nozzles;
- a plurality of dispensers connected to said at least one printing head for dispensing a plurality of photopolymers, each material having a different color; and
- a controller connected to said at least one printing head for combining said plurality of photopolymers in selectable proportions to produce layer materials having different colors.

37. (Once Amended) The system of claim 36 comprising an electromagnetic radiation source for curing at least one of the photopolymers.

38. (Once Amended) The system according to claim 37 wherein said electromagnetic radiation source includes a first electromagnetic radiation source for curing at least one of said photopolymers for a first period of time and at a first radiation wavelength to obtain a first modulus of elasticity.

Please add the following new claims:

39. (New) The method of claim 30, comprising repeating said dispensing and combining steps to construct multiple layers of a three-dimensional model.

40. (New) The system of claim 34, wherein said controller is operative to cause said at least one printing head to dispense said first and second photopolymers to construct multiple layers of a three-dimensional model.

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41. (New) The system of claim 36 wherein said controller is operative to cause said at least one printing head to dispense said first and second photopolymers to construct multiple layers of a three-dimensional model.

REMARKS

A response to the February 27, 2002 Office Action was May 27, 2001. Applicants are concurrently filing a petition for a One Month Extension of Time with the respective fee. Therefore, a response is due June 27, 2002. Accordingly, this Amendment is being timely filed. Applicants have added three new dependent claims, and, in the accompanying fee transmittal, are paying the appropriate small entity fee of \$27.00.

Applicants have carefully studied the outstanding Office Action. The present response is intended to be fully responsive to all points of rejection raised by the Examiner and is believed to place the application in condition for allowance. Favorable reconsideration and allowance of the application is respectfully requested.

Claims 2-5, 8-12, 14-16, 18-22, 24, and 27-41 are presently pending in the application. Claims 2-5, 8-12, 14-16, 19-22, 24, 27-32 and 34-38 have been amended and claims 39-41 added to further define Applicants' invention. Applicants assert the amendments to the claims add no new matter. Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version With Markings to Show Changes Made".